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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/360,685	07/26/1999	ANTONELLO COVACCI	CHIR-0157	4520

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EXAMINER

DEVI, SARVAMANGALA J N

ART UNIT PAPER NUMBER

1645

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SL

Office Action Summary

Application No.

09/360,685

Applicant(s)

COVACCI ET AL.

Examiner

S. Devi, Ph.D.

Art Unit

1645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 40, 41, 63, 127, 140 and 172-180 is/are allowed.
- 6) ☒ Claim(s) 45, 54, 57, 59, 62, 68, 70, 78, 80, 81, 88, 123, 141-165, 167 and 168 is/are rejected.
- 7) ☒ Claim(s) 166 and 169 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

RESPONSE TO APPLICANTS' AMENDMENT

Applicants' Amendment

- 1) Acknowledgment is made of Applicants' amendment filed 04/27/05 in response to the non-final Office Action mailed 11/30/04.

Status of Claims

- 2) Claims 54, 57, 63, 70, 81, 123, 141, 142, 147, 156-158, 172, 176 have been amended via the amendment filed 04/27/05.

Claims 126, 128, 170 and 171 have been canceled via the amendment filed 04/27/05.

Claims 40, 41, 45, 54, 57, 59, 62, 63, 68, 70, 78, 80, 81, 88, 123, 127, 140-169 and 172-180 are pending and are under examination.

Prior Citation of Title 35 Sections

- 3) The text of those sections of Title 35 U.S. Code not included in this action can be found in a prior Office Action.

Prior Citation of References

- 4) The references cited or used as prior art in support of one or more rejections in the instant Office Action and not included on an attached form PTO-892 or form PTO-1449 have been previously cited and made of record.

Rejection(s) Moot

- 5) The rejection of claims 126 and 128 made in paragraph 19 of the Office Action mailed 06/10/04 and maintained in paragraph 24 of the Office Action mailed 11/30/04 under 35 U.S.C. § 102(e)(2) as being anticipated by Cover *et al.* (US 5,403,924 - Applicants' IDS) ('924), is moot in light of Applicants' cancellation of the claims.
- 6) The rejection of claims 126 and 128 made or maintained in paragraph 20 of the Office Action mailed 06/10/04 and maintained in paragraph 25 of the Office Action mailed 11/30/04 under 35 U.S.C. § 102(b) as being anticipated by Covacci *et al.* (PNAS 90: 5791-5795, June 1993 - Applicants' IDS), is moot in light of Applicants' cancellation of the claims.
- 7) The rejection of claims 170 and 171 made in paragraphs 30(e) and 12(f) of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, second paragraph, as being indefinite, is moot in light of

Applicants' cancellation of the claims.

8) The rejection of claim 126 made in paragraph 30(a) of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, second paragraph, as being indefinite, is moot in light of Applicants' cancellation of the claim.

9) The rejection of claim 128 made in paragraph 30(b) of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, second paragraph, as being indefinite, is moot in light of Applicants' cancellation of the claim.

10) The rejection of claim 170 made in paragraph 30(e) of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, second paragraph, as being indefinite, is moot in light of Applicants' cancellation of the claim.

11) The rejection of claim 171 made in paragraph 30(f) of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, second paragraph, as being indefinite, is moot in light of Applicants' cancellation of the claim.

12) The rejection of claims 126 and 128 made in paragraph 31 of the Office Action mailed 11/30/04 under 35 U.S.C. § 102(e)(2) as being anticipated by *Figura et al.* (US 5,900,372, filed 10/16/1992 – already of record) ('372) as evidenced by *Figura et al.* (US 5,866,375 – already of record) ('375), is moot in light of Applicants' cancellation of the claims.

13) The rejection of claims 170 and 171 made in paragraph 32 of the Office Action mailed 11/30/04 under 35 U.S.C. § 102(e)(2) as being anticipated by *Cover et al.* (US 5,403,924 - Applicants' IDS) ('924) as evidenced by *Harlow et al.* (*In: Antibodies: A Laboratory Manual*. Cold Spring Harbor Laboratory, Chapter 5, p. 76, 1988), is moot in light of Applicants' cancellation of the claims.

Rejection(s) Withdrawn

14) The rejection of claim 57 made in paragraph 15(a) of the Office Action mailed 06/10/04 and maintained in paragraph 22 of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, second paragraph, as being indefinite, is withdrawn in light of Applicants' amendment to the claim.

15) The rejection of claim 59 made in paragraph 15(e) of the Office Action mailed 06/10/04 and maintained in paragraph 23 of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, second

paragraph, as being indefinite, is withdrawn in light of Applicants' amendment to the base claim.

16) The rejection of claims 54 and 141-152 made in paragraph 27 of the Office Action mailed 11/30/04 under 35 U.S.C. § 101 as being directed to a non-statutory subject matter, is withdrawn in light of Applicants' amendment to the claims.

17) The rejection of claims 156-158 made in paragraph 30(c) of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, second paragraph, as being indefinite, under 35 U.S.C. § 112, second paragraph, as being indefinite, is withdrawn in light of Applicants' amendments to the claims.

18) The rejection of claims 164-166 made in paragraph 30(d) of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, second paragraph, as being indefinite, is withdrawn in light of Applicants' amendments to the claims.

19) The rejection of claims 63, 70, 172 and 176 made in paragraph 30(e) of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, second paragraph, as being indefinite, is withdrawn in light of Applicants' amendments to the claims.

20) The rejection of claims 80, 140, 167-169, 173-175 and 177-180 made in paragraph 30(f) of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, second paragraph, as being indefinite, is withdrawn in light of Applicants' amendments to the base claim(s).

21) The rejection of claims 54, 81, 88, 123 and 141-152 made in paragraph 31 of the Office Action mailed 11/30/04 under 35 U.S.C. § 102(e)(2) as being anticipated by *Figura et al.* (US 5,900,372, filed 10/16/1992 – already of record) ('372) as evidenced by *Figura et al.* (US 5,866,375 – already of record) ('375), is withdrawn in light of Applicants' amendments to the claims and/or the base claims.

22) The rejection of claims 63, 140, 172-174 and 180 made in paragraph 33 of the Office Action mailed 11/30/04 under 35 U.S.C § 103(a) as being unpatentable over *Cover et al.* (US 5,403,924 - Applicants' IDS) ('924) and *Dunn et al.* (*Infect. Immun.* 60: 1946-1951, May 1992 - Applicants' IDS) or *Evans et al.* (*Infect. Immun.* 60: 2125-2127, May 1992 - Applicants' IDS) in view of *Hirschl et al.* (*In: Helicobacter pylori, gastritis and peptic ulcer.* (Ed) Malfertheiner et al. Springer-Verlag, Berlin Heidelberg, 141-146, 1990), is withdrawn upon further consideration.

23) The rejection of claims 176-178 made in paragraph 34 of the Office Action mailed 11/30/04

under 35 U.S.C § 103(a) as being unpatentable over Cover *et al.* (US 5,403,924 - Applicants' IDS) ('924) and Cover *et al.* (US 6,054,132, filed 02/26/1992) ('132) in view of Hirschl *et al.* (*In: Helicobacter pylori, gastritis and peptic ulcer.* (Ed) Malfertheiner *et al.* Springer-Verlag, Berlin Heidelberg, 141-146, 1990), is withdrawn upon further consideration.

Rejection(s) Maintained

24) The rejection of claims 45, 54, 62, 68, 78, 81, 88 and 123 made in paragraph 20 of the Office Action mailed 06/10/04 and maintained in paragraph 25 of the Office Action mailed 11/30/04 under 35 U.S.C. § 102(b) as being anticipated by Covacci *et al.* (*PNAS* 90: 5791-5795, June 1993 - Applicants' IDS), is maintained for reasons set forth therein and herebelow.

Applicants contend that the disclosure of amino acids 750-977 of SEQ ID NO: 5 and nucleotides 2782-3466 of SEQ ID NO: 4 in Figures 3B and 3C and claims 2 and 3 of the Italian Priority document, FI92A/000052, is entitled to a priority date of 02 March 1992, and therefore Covacci does not qualify as prior art.

Applicants' argument has been carefully considered, but is non-persuasive. The applied reference of Covacci *et al.* qualifies as prior art because the instant claims are not granted priority to the Italian priority application. See the Office's response to the new matter rejection(s) made below for a detailed explanation.

25) The rejection of claims 45, 54, 62 and 81; claims 68, 78, 88, 152 and 153 dependent therefrom; and claims 141, 142, 147, 154, 159 and those dependent therefrom, made in paragraph in paragraph 28 of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, first paragraph, as containing new subject matter, is maintained for reasons set forth therein and herebelow.

Applicants contend that: (a) The Italian priority document was incorporated by reference in the opening paragraph of the specification, claim 2 of which claims a polypeptide comprising an amino acid sequence shown in three letter code; (b) This sequence corresponds to amino acids 750-977 of SEQ ID NO: 5 of the present specification; (c) There is adequate support in the priority document for the claims and through incorporation by reference in the instant specification; (d) One of skill in the art can easily see that the sequence shown in the Italian priority document corresponds to a portion of the sequence of SEQ ID NO: 5. It is simply a pragmatic way to express the idea of a

polypeptide comprising the sequence that was shown in the earlier priority document and does not constitute new matter.

Applicants' arguments have been carefully considered, but are non-persuasive. As set forth previously, the claimed polypeptide comprising 'amino acids 750-977 of the amino acid sequence of SEQ ID NO: 5' encompasses: (a) a polypeptide comprising amino acids 750-977 of SEQ ID NO: 5 and one or more of any other amino acids from any SEQ ID number on either side of the amino acids 750-977; (b) a polypeptide comprising amino acids 750-977 of SEQ ID NO: 5 and one or more of amino acids from SEQ ID NO: 5 on either side of the amino acids 750-977; and (c) a full length polypeptide comprising the amino acid sequence of SEQ ID NO: 5. However, there is no descriptive support in the specification, as originally filed, for such a scope. The limitation '750-977' is absent in the instant application. The limitations '750-977' and 'SEQ ID NO: 5' are both absent in the Italian priority application. Claim 2 of the Italian priority document claims a 130 kDa protein 'comprising the ... amino acid sequence' that is depicted as containing '1-228' amino acids (see claim 2 of the Italian priority document). Figure 4 of the instant application does not indicate amino acids 750-977 of the amino acid sequence of SEQ ID NO: 5 as being separable from the whole sequence either by underlining or boxing the specifically recited amino acids 750-977 within SEQ ID NO: 5. In other words, unlike the sequence EPIYA or NNNNNN, the amino acids 750-977 of SEQ ID NO: 5 are not placed within a box in Figure 4. It does not appear that amino acids 750-977 of the amino acid sequence of SEQ ID NO: 5 are recited or identified separately as a fragment of SEQ ID NO: 5 either in the raw sequence listing or in any part of the instant specification. Figure 3C of the Italian priority document does not depict the entire polypeptide of SEQ ID NO: 5, including the amino acid composition up to the amino acid 750 and beyond the amino acid 977. Figure 3C of the priority document is not described as depicting a polypeptide 'fragment' or 'portion' that is separable from the instantly recited full length SEQ ID NO: 5. While the English-translated Italian priority document provides description for Figures 1, 2 and 4, it does not provide any description for Figure 3. Therefore, the limitations identified in the claims are considered to be new matter. The rejection stands.

26) The rejection of claims 123 made in paragraph in paragraph 29 of the Office Action mailed 11/30/04 under 35 U.S.C. § 112, first paragraph, as containing new subject matter, is maintained for reasons set forth therein and herebelow.

Applicants contend that (a) The Italian priority document was incorporated by reference in the opening paragraph of the specification, claim 3 of which claims a polypeptide expressed by a gene which contains the nucleic acid sequence shown in single letter code; (b) This sequence corresponds to amino acids 2782-3466 of SEQ ID NO: 4 of the present specification; (c) There is adequate support in the priority document for the claims and through incorporation by reference in the instant specification; and (d) One of skill in the art can easily see that the sequence shown in the Italian priority document corresponds to a portion of the sequence of SEQ ID NO: 4. It is simply a pragmatic way to express the idea of a polypeptide comprising the sequence that was shown in the earlier priority document and does not constitute new matter.

Applicants' arguments have been carefully considered, but are non-persuasive. As set forth previously, the recited polynucleotide comprising 'nucleotides 2782-3466' of the nucleotide sequence of SEQ ID NO: 4 encompasses: (a) a polynucleotide comprising nucleotides 2782-3466 of the nucleotide sequence of SEQ ID NO: 4 and one or more of any other nucleotides from any SEQ ID number on either side of nucleotides 2782-3466; (b) a polynucleotide comprising nucleotides 2782-3466 of the nucleotide sequence of SEQ ID NO: 4 and one or more of nucleotides from SEQ ID 4; and (c) the full length polynucleotide comprising the whole nucleotide sequence of SEQ ID NO: 4. Because of the open claim language 'comprising', the full length polynucleotide comprising the whole nucleotide sequence of SEQ ID NO: 4 is not excluded from the scope of the claim. However, there appears to be no descriptive support in the specification, as originally filed, for such a scope. The limitation 'nucleotides 2782-3466' is absent in the instant application. The limitations '2782-3466' and 'SEQ ID NO: 4' are absent in the Italian priority application. Claim 3 of the Italian priority document claims a 130 kDa protein 'expressed by the gene which contains ... the nucleotide sequence' that is depicted as containing '1-699' nucleotides (see claim 3 of the Italian priority document). Figure 4 of the instant application does not indicate nucleotides 2782-3466 of the nucleotide sequence of SEQ ID NO: 4 as being separable from the whole sequence either by underlining or boxing the specifically recited nucleotides. It does not appear that nucleotides 2782-3466 of the nucleotide sequence of SEQ ID NO: 4 are recited or identified separately as a fragment of SEQ ID NO: 4 either in the raw sequence listing or in any part of the specification. Figure 3B of the Italian priority document does not depict the entire nucleotide sequence of SEQ ID NO: 4, including the nucleotide composition up to the nucleotide 2782 and beyond the nucleotide 3466.

Figure 3B of the priority document is not described as depicting a nucleotide sequence fragment that is separable from the instantly recited SEQ ID NO: 4. While the English-translated Italian priority document provides description for Figures 1, 2 and 4, it does not provide any description for Figure 3. Therefore, the limitations identified in the claims are considered to be new matter. The rejection stands.

27) The rejection of claims 57 and 59 made in paragraph 33 of the Office Action mailed 11/30/04 under 35 U.S.C § 103(a) as being unpatentable over Cover *et al.* (US 5,403,924 - Applicants' IDS) ('924) and Dunn *et al.* (*Infect. Immun.* 60: 1946-1951, May 1992 - Applicants' IDS) or Evans *et al.* (*Infect. Immun.* 60: 2125-2127, May 1992 - Applicants' IDS) in view of Hirschl *et al.* (*In: Helicobacter pylori, gastritis and peptic ulcer.* (Ed) Malfertheiner et al. Springer-Verlag, Berlin Heidelberg, 141-146, 1990), is maintained for reasons set forth therein and herebelow.

Applicants argue that Hirschl teaches that there are three categories of antigens: whole cell antigens, partially purified antigens, and highly purified antigens. Hirschl is stated as allegedly noting that highly purified antigens have suboptimal sensitivity and produce a large number of false negatives. Applicants submit that one would be motivated not to use highly purified antigens and that Hirschl teaches away from the use of highly purified antigens. Applicants point to Hirschl's teaching that 'interesting results' were found when a highly purified antigen was combined with a partially purified preparation, which is a centrifuged cell sonicate and acid glycine extracts. Applicants conclude that: (a) Hirschl does not teach the combination of 'purified polypeptides as instantly claimed'; (b) Hirschl leads the skilled artisan away from purifying antigens for fear of losing sensitivity; (c) Hirschl would lead one to predict failure; and (d) There is no motivation to combine 'purified' antigens with any reasonable expectation of success.

Applicants' arguments have been carefully considered, but are not persuasive. Contrary to Applicants' assertion, the second polypeptide recited in the base claim 57 is not 'purified'. At least Dunn taught isolated, water-extracted (i.e., partially purified and acellular) heat shock protein. Hirschl does provide motivation for one of ordinary skill in the art to combine Cover's ('924) purified first polypeptide with Dunn's isolated second polypeptide for reasons set forth in paragraph 33 of the Office Action mailed 11/30/04. Therefore, the rejection stands.

Claims 164 and 165, which depend from claim 57 and which were inadvertently omitted from the rejection statement at paragraph 33 of the Office Action mailed 11/30/04, are now added to this rejection. The term 'recombinant' in claims 164 and 165 represent the process limitation in product claims. It should be noted that when claims are drawn to a product-by-process, claims are not limited to the manipulations of the recited step(s), but only the structure implied by the steps. MPEP § 2113 states:

[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted).

A product does not have to be made by the same process in order to be the same product, because a product is a product, no matter how it is claimed. Applicants have not shown that the alleged difference(s) in the isolation process results in a product that is structurally different from the product of the prior art.

28) The rejection of claims 70, 80, 167 and 168 made in paragraph 34 of the Office Action mailed 11/30/04 under 35 U.S.C § 103(a) as being unpatentable over Cover *et al.* (US 5,403,924 - Applicants' IDS) ('924) and Cover *et al.* (US 6,054,132, filed 02/26/1992) ('132) in view of Hirschl *et al.* (*In: Helicobacter pylori, gastritis and peptic ulcer.* (Ed) Malfertheiner *et al.* Springer-Verlag, Berlin Heidelberg, 141-146, 1990, already of record), is maintained for reasons set forth therein and herebelow.

Applicants argue that Hirschl teaches that there are three categories of antigens: whole cell antigens, partially purified antigens, and highly purified antigens. Hirschl is stated as allegedly noting that highly purified antigens have suboptimal sensitivity and produce a large number of false negatives. Applicants submit that one would be motivated not to use highly purified antigens and that Hirschl teaches away from the use of highly purified antigens. Applicants point to Hirschl's teaching that 'interesting results' were found when a highly purified antigen was combined with a partially purified preparation, which is a centrifuged cell sonicate and acid glycine extracts. Applicants conclude that: (a) Hirschl does not teach the combination of 'purified polypeptides as instantly claimed'; (b) Hirschl leads the skilled artisan away from purifying antigens for fear of

losing sensitivity; (c) Hirschl would lead one to predict failure; and (d) There is no motivation to combine 'purified' antigens with any reasonable expectation of success.

Applicants' arguments have been carefully considered, but are not persuasive. Contrary to Applicants' assertion, the second polypeptide recited in the base claim 70 is not 'purified'. Cover ('132) also taught a polypeptide isolated (i.e., partially purified) from the culture supernatant. Hirschl does provide motivation for one of ordinary skill in the art to combine Cover's ('924) purified first polypeptide with Cover's ('132) isolated second polypeptide for reasons set forth in paragraph 33 of the Office Action mailed 11/30/04. Therefore, the rejection stands.

Rejection(s) under 35 U.S.C § 103

29) Claims 164 and 165 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cover *et al.* (US 5,403,924 - Applicants' IDS) ('924) as modified by Dunn *et al.* (*Infect. Immun.* 60: 1946-1951, May 1992 - Applicants' IDS) or Evans *et al.* (*Infect. Immun.* 60: 2125-2127, May 1992 - Applicants' IDS) in view of Hirschl *et al.* (*In: Helicobacter pylori, gastritis and peptic ulcer.* (Ed) Malfertheiner *et al.* Springer-Verlag, Berlin Heidelberg, 141-146, 1990, already of record) as applied to claim 57 above.

See paragraph 27 above and paragraph 33 of the Office Action mailed 11/30/04 for a detailed explanation.

Remarks

30) Claims 45, 54, 57, 59, 62, 68, 70, 78, 80, 81, 88, 123, 141-165, 167 and 168 stand rejected. Claims 40, 41, 63, 127, 140 and 172-180 are allowable. Claims 166 and 169 stand objected to for being dependent from a rejected claim.

31) Papers related to this application may be submitted to Group 1600, AU 1645 by facsimile transmission. Papers should be transmitted via the PTO Fax Center, which receives transmissions 24 hours a day and 7 days a week. The transmission of such papers by facsimile must conform with the notice published in the Official Gazette, 1096 OG 30, November 15, 1989. The central Fax number for submission of amendments, responses or papers is (571) 273-8300.

32) Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAG or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.Mov>. Should you have questions on access to the Private PAA system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

33) Any inquiry concerning this communication or earlier communications from the Examiner should be directed to S. Devi, Ph.D., whose telephone number is (571) 272-0854. A message may be left on the Examiner's voice mail system. The Examiner can normally be reached on Monday to Friday from 7.15 a.m. to 4.15 p.m. except one day each bi-week, which would be disclosed on the Examiner's voice mail system.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Lynette Smith, can be reached on (571) 272-0864.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

July, 2005


S. DEVI, PH.D.
PRIMARY EXAMINER

Continuation of Disposition of Claims: Claims pending in the application are 40,41,45,54,57,59,62,63,68,70,78,80,81,88,123,127,140-169 and 172-180.